

### **REMARKS**

Claims 1-26 are now pending in the application and stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **SPECIFICATION**

The disclosure stands objected to for certain informalities. Applicants have amended the specification according to the Examiner's suggestions. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

### **REJECTION UNDER 35 U.S.C. § 101**

Claims 1-22 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is respectfully traversed.

Independent claims 1, 10, 12 and 21 have been amended as further discussed below. Applicant respectfully submits that the amended independent claims 1, 10, 12 and 21, and hence all of claims 1-22, claim a tangible result and are directed to statutory subject matter.

### **REJECTION UNDER 35 U.S.C. § 103**

Claims 1-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,696,885 to Hekmatpour. This rejection is respectfully traversed.

Claim 1 is amended to recite a "method of analyzing the ownership costs of a complex physical system involving a plurality of cost-incurring operations associated with components of the system, the method comprising: using a plurality of nodes of a tree structure to represent a plurality of operations associated with the system; using a first and a second node of the tree structure to represent a first and a second operation

associated with the system; using a branch of the tree structure to represent a dependency of the second operation on the first operation; determining whether a third node used to represent an operation represents the first operation; and based on the determining, modifying a cost associated with the second operation.”

Hekmatpour describes an expert system in which nodes are coupled together in three distinct levels: an uppermost behavioral knowledge level, a middle structural knowledge level, and a lowermost action level (col. 4, lines 55-67). The upper two levels deal with information processing tasks, while the lowest level deals with executing various specific tasks (col. 15, line 26-col. 16, line 3). Accordingly, nodes in different levels represent different types of concepts. Additionally, in the lowermost action level, a node is either a question node (that asks the user for information or verification) or an action node (that asks the user or calls upon services to perform specific actions (col. 16, line 66-col. 17 line 5). Hekmatpour does not teach or suggest “...determining whether a third node used to represent an operation represents the first operation; and based on the determining, modifying a cost associated with the second operation” as recited in amended claim 1. Accordingly, Applicant submits that amended claim 1, and claims 2-9 dependent on claim 1, should be allowed.

As to independent claim 10, the claim is amended to recite a “method of analyzing the ownership costs of a complex physical system involving a plurality of cost-incurring operations associated with components of the system, the method comprising: using a plurality of nodes of a tree structure to represent a plurality of operations associated with the system; using a first and a second node of the tree structure to represent a first and a second operation associated with the system; using a first branch

of the tree structure to represent a dependency of the second operation on the first operation; determining whether a second branch between the first node and a third node represents a dependency of the first operation on a third operation represented by the third node; and based on the determining, modifying one or more costs associated with at least one of the second and third operations.”

As previously discussed with reference to claim 1, Hekmatpour describes an expert system in which nodes in different levels represent different types of concepts. Hekmatpour does not teach or suggest “...determining whether a second branch between the first node and a third node represents a dependency of the first operation on a third operation represented by the third node; and based on the determining, modifying one or more costs associated with at least one of the second and third operations” as recited in amended claim 10. Accordingly, Applicant submits that amended claim 10, and claim 11 dependent on claim 10, should be allowed.

As to independent claim 12, the claim is amended to recite a “computer-readable medium comprising instructions executable to cause a data processing apparatus to establish a cost model ... comprising: a tree structure in which a plurality of nodes are used to represent a plurality of operations associated with the system; a first node representing a first operation associated with the system; a second node representing a second operation associated with the system; and a branch between the first node and the second node representing a dependency of the second operation on the first operation; the model further configured to determine whether a third node used to represent an operation represents the first operation, and based on the determination, to modify a cost associated with the second operation.”

As previously discussed with reference to claim 1, Hekmatpour describes an expert system in which nodes in different levels represent different types of concepts. Hekmatpour does not teach or suggest a "...model further configured to determine whether a third node used to represent an operation represents the first operation, and based on the determination, to modify a cost associated with the second operation" as recited in amended claim 12. Accordingly, Applicant submits that amended claim 12, and claims 13-20 dependent on claim 12, should be allowed.

As to independent claim 21, the claim is amended to recite a "computer-readable medium comprising instructions executable to cause a data processing apparatus to establish a cost model ... comprising: a tree structure in which a plurality of nodes are used to represent a plurality of operations associated with the system; a first node representing a first operation associated with the system; a second node representing a second operation associated with the system; and a branch between the first node and the second node representing a dependency of the second operation on the first operation; the model further configured to determine whether a second branch between the first and third nodes represents a dependency of the first operation on a third operation represented by the third node, and based on the determination, to modify one or more costs associated with at least one of the second and third operations."

As previously discussed with reference to claim 1, Hekmatpour describes an expert system in which nodes in different levels represent different types of concepts. Hekmatpour does not teach or suggest a "...model further configured to determine whether a second branch between the first and third nodes represents a dependency of the first operation on a third operation represented by the third node, and based on the

determination, to modify one or more costs associated with at least one of the second and third operations” as recited in amended claim 21. Accordingly, Applicant submits that amended claim 21, and claim 22 dependent on claim 21, should be allowed.

Independent claim 23 is amended to recite a “computer for modeling costs associated with a complex physical system having a plurality of cost-incurring operations associated with the system, the computer comprising: a memory to store a tree structure in which each of a plurality of nodes is used to represent an operation associated with the system, the tree structure including: a first node representing a first operation associated with the system; a second node representing a second operation associated with the system; and a branch between the first node and the second node representing a dependency of the second operation on the first operation; a processor configured to determine whether a third node used to represent an operation represents the first operation and based on the determining, reduce a cost associated with the second node; and a graphical user interface configured to display the reduced cost.”

As previously discussed with reference to claim 1, Hekmatpour describes an expert system in which nodes in different levels represent different types of concepts. Hekmatpour does not teach or suggest the recitations of amended claim 23. Accordingly, Applicant submits that amended claim 23, and claim 24 dependent on claim 23, should be allowed.

Claim 25 is amended to recite a “computer for modeling costs associated with a complex physical system having a plurality of cost-incurring operations associated with the system, the computer comprising: a memory to store a tree structure in which each of a plurality of nodes is used to represent an operation associated with the system, the

tree structure including: a first node representing a first operation associated with the system; a second node representing a second operation associated with the system; and a first branch between the first node and the second node representing a dependency of the second operation on the first operation; a processor configured to determine whether a second branch between the first node and a third node represents a dependency of the first operation on a third operation represented by the third node, and based on the determining, reduce one or more costs associated with the second and third nodes; and a graphical user interface configured to display the reduced costs.”

As previously discussed with reference to claim 1, Hekmatpour describes an expert system in which nodes in different levels represent different types of concepts. Hekmatpour does not teach or suggest the recitations of amended claim 25. Accordingly, Applicant submits that amended claim 25, and claim 26 dependent on claim 25, should be allowed.

## **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner

believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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